AIRCRAFT DISPATCHER

UNIT 6 – AIRSPACE MANAGEMENT

STUDENT WORKBOOK

UNIT OBJECTIVES

1. Locate information concerning basic airspace, Temporary Flight Restrictions (TFRs) and advisory Notices to Airmen (NOTAMs), airspace conflicts, and temporary towers in the Interagency Airspace Coordination Guide.

2. Identify six types of Special-Use Airspaces (SUAs) and two types of Military Training Routes (MTRs).

3. Complete the TFR process.

4. Identify the tools used in airspace coordination.

NOTES

I. FAA ROLES AND RESPONSIBILITIES

A. The Federal Aviation Act of 1958, as amended, gave the FAA exclusive responsibility for safely and efficiently managing all national airspace within the continental United States.

B. With FAA concurrence, specific areas and routes have been established to provide airspace necessary for the military mission.

C. National Aeronautical Charting Office (NACO)

Publishes aeronautical charts and publications to support recreational, military, and commercial aviation in the U.S. and its territories

D. Air Route Traffic Control Center (ARTCC)

Receives the TFR request

E. U.S. NOTAM Office

Issues the TFR NOTAMs

F. Flight Service Station (FSS)

Distributes the TFR NOTAM to pilots along with weather briefings and local NOTAMs

G. Flight Standards District Office (FSDO)

Investigates TFR intrusions and near mid-air collisions (NMACs)

II. SHARED RESPONSIBILITIES

A. The primary focus in airspace coordination is mid-air collision avoidance.

B. Airspace coordination and deconfliction is a shared responsibility among ALL aviation users and schedulers.

Deconfliction is the process of reducing the risk of a mid-air accident by sharing flight information with the FAA and the DOD and may result in a request for a Temporary Flight Restriction (TFR).

III. NATIONAL AIRSPACE SYSTEM (NAS)

A. Class A Through G Airspace

There are six classifications of airspace within the National Airspace System–Classes A through G.

These refer to the level of air traffic control required to operate within the airspace.

1. Class A

   - 18,000 feet MSL to 60,000 feet MSL

2. Class B

   - Airspace surrounding the nation's busiest airports

3. Class C

   - Airspace around busy airports of mid-sized cities

4. Class D

   - Airspace at airports with operating control towers but encounter less traffic than Class B or C

5. Class E

- IFR traffic
- 14,500 feet MSL to 18,000 feet MSL

6. Class F

- International classification
- None in the U.S.

7. Class G

- Uncontrolled airspace

B. Victor Routes

- Routing corridors (“highways in the sky”)
- Used by general aviation–both IFR and VFR
- 8 nautical miles (NM) wide

- 1,200 feet AGL up to 17,999 feet MSL

- Depicted on aeronautical sectional charts as a blue-shaded line with a V (hence the term Victor) followed by a number (e.g., V500)

C. Categories of Special-Use Airspace

1. Prohibited Areas (PAs)

- These areas are established over sensitive ground facilities such as the White House, Presidential homes, Camp David, etc.

- The dimensions of the prohibited area vary with the nature of the risk to the ground facility and to overflying aircraft.

2. Restricted Areas (RAs)

- Restricted areas are established where ongoing or intermittent activities occur that create unusual, and often invisible, hazards to aircraft such as artillery firing, aerial gunnery, guided missiles, and missile testing.

- Dimensions of the restricted area vary depending upon the needs of the underlying activity and the risks to aircraft.

3. Military Operations Areas (MOAs)

- MOAs were established to contain certain military activities such as air combat maneuvers, intercepts, acrobatics, etc.

- Civilian VFR and IFR flights **<u>are</u>** allowed within a MOA even when the area is in use by the military.

- MOAs have a defined floor and ceiling which can range up to the floor of Class A airspace (18,000 feet MSL).

4. Alert Areas (AAs)

- Alert areas may contain a high volume of pilot training or an unusual type of aerial activity which could present a hazard to other aircraft.

- Alert area dimensions differ for each area and can be determined by consulting chart legends on sectional charts, IFR en route charts, or terminal area charts.

5. Warning Areas (WAs)

- These areas contain the same kind of hazardous flight activity as restricted areas but have a different title since they are located offshore over domestic and international waters.

- Dimensions for each warning area can be determined by consulting chart legends on sectional charts, IFR en route charts, or terminal area charts.

6. Controlled Firing Areas (CFAs)

- These areas contain civilian and military activities which, if not contained, could be hazardous to "non-participating" aircraft.

- The FAA does not chart CFAs because they do not require a non-participating aircraft to change its flight path.

- Contact the nearest FAA regional headquarters or the Military Representative (MILREP) to determine if a CFA exists in proximity to an agency flight operation.

D. Military Training Routes

1. Routes provided for military training

   - Low-level, high-speed routes
   - Speeds of more than 250 knots
   - Altitudes that range from the surface to 18,000 feet MSL– most are conducted well below 10,000 feet MSL

2. There are over 500 routes.

3. IR Routes

   - Routes being flown under IFR rules
   - Half of the routes exist for IFR operations

4. VR Routes

   - Routes being flown under VFR rules
   - Half of the routes exist for VFR operations

5. Elements of an MTR

- Entry Point
- Segment
- Route Exit

IV. OTHER MILITARY AIRSPACE STRUCTURES

A. Slow Routes (SRs)

- Slow-speed low-altitude training routes are used for military air operations at or below 1,500 feet AGL at air speeds of 250 knots or less.
- There are about 200 slow routes in the United States. They are charted on the AP/1B maps and are depicted by a black line.

B. Low Altitude Tactical Navigation Areas (LATNs)

- LATNs are large, clearly defined geographical areas wherein the Air Force practices random tactical navigation that typically ranges from 500 feet to 1,500 feet AGL.
- The floor and ceiling altitudes may vary depending on the objective of the training mission and could be flown as low as 300 feet AGL.

C. Aerial Refueling Routes (ARs)

Most exist at high altitude, but be aware of VFR helicopter refueling tracks at low levels as charted in the AP/1B

V. AIRSPACE ISSUES

A. Flights Over Special Conservation Areas

- Pilots are requested to maintain a minimum altitude of 2,000 feet above the surface of:
  - National parks
  - Seashores
  - Lake shores
  - Recreation areas
  - Scenic river ways

B. Major Migratory Flyways

1. Major North American Flyways
   - Atlantic
   - Mississippi
   - Central
   - Pacific

2. There are more than 27 million migratory waterfowl in the U.S.

- 1996 mid-winter waterfowl survey

- State wildlife agencies and USFWS

C. National Security Areas (NSAs)

- Unauthorized aircraft are advised to remain clear of the area.

- Examples: Idaho National Laboratory (INL), Tennessee Valley Authority (TVA), Livermore Laboratories

D. Other Airspace Issues

- Parachute jump operations

- Remotely-piloted air vehicles

- Patrol aircraft

- Ultralights/gliders/piloted balloons

- Banner towing

- Laser shows

VI. TEMPORARY FLIGHT RESTRICTIONS (TFRs)

A. Notice To Airmen (NOTAM)

- FAA method of distributing information to pilots

- Can be advisory or regulatory

  – Advisory NOTAMs can be requested for spray projects, wild horse roundups, parachute jumping practice, seed and fertilizing, helibase outside the TFR, and prescribed burns.

  – Regulatory NOTAMs include TFRs.

1. NOTAM (L)

- Distributed locally

- Issued by Flight Service Station (FSS)

- Advisory in nature

- Examples: parachute jumps or deer on the runway

2. NOTAM (D)

- Same as the NOTAM (L) but has a wider distribution

- Example: taxiway closures

3. FDC NOTAM

- Regulatory in nature

- Issued by National Flight Data Center (NFDC)

- Example: Temporary Flight Restriction (TFR)

B. Types of TFRs

There are seven kinds of TFRs.

Three are issued under Code of Federal Regulations (CFR) Section 91.137 sub paragraphs (a)(1), (a)(2), and (a)(3) and the other four are under Sections 91.138, 91.141, 91.143 and 91.145.

1. 14 CFR Section 91.137 (a)(1)

- Most restrictive TFR

- Protects persons and property in the air or on the surface from an existing or imminent hazard associated with an incident on the surface when the presence of low flying aircraft would magnify, alter, spread, or compound that hazard

- Rarely issued for wildland fire incidents

- Commonly used for:

  – Toxic gas leaks, spills, fumes from flammable agents

  – Volcanic eruptions

  – Nuclear accident or incident

  – Hijacking incidents

  – Aircraft accident sites at the discretion of the FAA

2. 14 CFR Section 91.137 (a)(2)

   - Provides a safe environment for the operation of disaster relief aircraft

   - Most common TFR when dealing with wildland fires

- Includes, but is not limited to:
  - Wildland fires which are being fought by aviation resources
  - Aircraft relief activities following a disaster (e.g., earthquake, tidal wave, flood, hurricane)
  - Aircraft accident sites

3. 14 CFR Section 91.137 (a)(3)

   Prevents an unsafe congestion of sightseeing aircraft above an incident or event which may generate a high degree of public interest

4. 14 CFR Section 91.141

   - Used for Presidential VIP events
   - No exceptions

5. 14 CFR Section 91.145

   Used in the vicinity of aerial demonstrations and major sporting events (e.g., Blue Angels and Indianapolis 500)

C. Criteria for Determining the Need for a TFR

1. Type and number of aircraft operations occurring within the incident

2. Routes for disaster relief aircraft

3. Multiple incidents in close proximity

4. Complexity creates a hazard to non-participating aircraft.

5. Extended operations are anticipated.

6. Operations are in the vicinity of high-density aircraft traffic.

7. Incidents are expected to attract sightseeing aircraft.

8. Operations are conducted in or near SUAs or MTRs.

9. Incident is conducted in or near a Victor airway.

10. The “See and Avoid” capability is reduced or compromised.

Basic Checklist For Implementing TFRs				Page 1 of 1	
Location: _____		By: _____		Date : ___/___/___	
Step	**Action**	**To**	**From**	**Date**	**Time**
1	Determine need for TFR and/or deconfliction by the military.				
2	Plot incident or project locations using maps and/or computer system: if Special-Use Airspace or Military Training Routes involved, perform Steps 6 and/or 7 prior to Steps 4-5.				
3	Complete resource order with interagency request for TFR and document contacts requesting deconfliction of airspace with DOD.				
4	Contact FAA ARTCC with request for TFR; request call-back with confirmation.				
5	Inform FAA FSS of request made to ARTCC; request advisory NOTAM, if necessary.				
6	If Special-Use Airspace (MOAs, RAs, etc.) involved, contact military scheduling agency and request deconfliction of airspace until TFR granted by FAA.				
7	If Military Training Route(s) involved, contact military scheduling activity and request deconfliction of airspace until TFR granted by FAA.				
8	Relay copy of TFR request to GACC if appropriate.				
9	All aircraft and incident commander(s) informed of TFR status and, if appropriate, activity status of special-use or along Military Training Route(s).				
10	Air tactical, lead plane, and/or aerial observer ordered if appropriate.				
11	Document call-back confirmations received on the “Interagency Request for Temporary Flight Restriction” and document DOD contacts.				

D. TFR Dimensions

- Size and shapes may vary depending on geographical factors and aviation needs.

- The standard horizontal dimension of a TFR is a 5 NM radius from the center point of the incident.

- The standard vertical dimension of a TFR is 2,000 feet above the highest terrain of the disaster area or above the operating altitude of participating aircraft.

E. Aircraft that are Allowed Inside a 14 CFR Section 91.137 (a)(2) or 91.137 (a)(3) TFR

- Participating aircraft

- Airport traffic

- IFR traffic under air traffic control direction

- Law enforcement

  There is no requirement for prior notification to enter the TFR.

- Media

  The media can legally fly into the TFR area as long as they remain above the operating altitude of the disaster relief aircraft unless otherwise authorized by the official in charge (i.e., Air Tactical Group Supervisor)

  – Must be an accredited news representative

  – Prior to entering the TFR, a flight plan is filed with the appropriate FSS or ATC as specified in the NOTAM.

F. TFR Ordering

1. Order the TFR on an Aircraft Resource Order.

2. TFR Form Completion

   a. IAMS/CAHIS Version

   b. TFR Request Form (Interagency Request for Temporary Flight Restriction)

3. Placing the TFR Request

   a. Fax the TFR Request Form to the ARTCC with jurisdiction for the area.

   b. Call the ARTCC and ask for the supervisor on duty.

   c. Review the TFR Request with the ARTCC supervisor on duty.

4. Notification

   a. The TFR request is sent by ARTCC to the U.S. NOTAM Office for issuance.

   b. The U.S. NOTAM Office issues NOTAM to FSS.

   c. NOTAM may be requested from the FAA by fax or viewed on the Internet.

      Takes approximately 1 hour to receive the NOTAM from the ARTCC.

   d. Document the NOTAM number on TFR Request Form and Resource Order.

TFR REMINDERS

Setting Up:

- Take the time to plot and review your TFR on a sectional to determine the types of airspace involved. IAMS/CAHIS does not give you all the airspace information you need when talking with the FAA.

Telephone Number:

- Use a 24-hour contact number (not a toll-free number) that will be in service after the incident has concluded. This number will also be the point of contact for other agencies, media, etc., regarding the TFR.

- Do NOT use an expanded dispatch or a daytime-only phone number.

TFR Description:

- Use a local or nearby VOR when describing the incident using a VOR bearing and distance.

- Calculate from the closest NAV/AID. Do not use NDB (Non-Directional Beacons) or T-VORs.

- Latitudes and longitudes must match bearing and distance descriptions.

- The FAA requires that latitude/longitude information for TFRs be provided in degrees, minutes and seconds, including reference to north latitude and west longitude. If seconds information is not available, add two zeros to the description.

- Do not use spaces, commas or other symbols in the description.

- Example: ddmmssN/dddmmssW or 450700N/1177005W.

Polygons: TFR Shape:

- Under Block 5, there are two choices, a standard round TFR or a polygon—Do not complete both parts of Block 5.

- The usual TFR is a circle and it's rare to have a box, rectangle, or a polygon.

- When requesting a polygon TFR, you must submit both the latitude/longitude and bearing/distance information. If a polygon TFR is requested, the corner points must be listed in a clockwise sequence around the requested TFR to avoid "bow tie" depictions.

Getting the Incident Name in the TFR:

- If you elect to use the IAMS/CAHIS, ROSS or other customized forms, include the following sentence that has been approved by the FAA:

  "The _____ (Agency Name)/_____(Incident Name) at _____ (24 hour Phone number – no Toll Free Numbers), _____ (VHF AM Air/Air Frequency) is in charge of the on scene emergency response activities. TFR is to provide a safe environment for fire fighting aircraft operations, effectively immediately, until further notice, 24 hours/day."

MSL Altitude Only:

- Altitude must be given to the FAA as MSL. A rule of thumb is that the "top" of the TFR is 2,000' above the highest elevation on the incident or 2,000' above the highest flying aircraft on the incident. Note – Some areas and IAMS/CAHIS uses 3,000' as a standard.

- Convert to MSL so that it gives the TFR a "hard top." Coordinate with the Air Tactical FS, ASM or lead plane to make this decision.

Frequency:

- Add the VHF-AM air-to-air frequency to your TFR request and ask that the FAA publish the frequency.

- Monitor your TFR and keep the FAA notified if the frequency changes. Should the frequency change, cancel the TFR and issue a new one.

TFR Management:

- Combine TFRs when appropriate.

- Do not issue TFRs for BAER projects.

- Wildfire TFRs are in place 24 hours a day. Do not open TFRs for nighttime use by other users.

- Do not use internal three- or four-letter codes on your TFR request (Requesting Unit, etc). The FAA does not know whom the codes refer to.

HOW TO ACCESS TEMPORARY FLIGHT RESTRICTIONS (TFRs) THROUGH THE INTERNET

1) TFRs are issued by the US NOTAM Office as a FDC NOTAM. Go to https://www.notams.jcs.mil or https://www.notams.faa.gov (note the "s" after the http. These sites are on secure servers and are identical (mirror) sites. You may have to click several times through a security process.

2) If you wish to pull all TFRs in the nation, click on ARTCC TFRs.

3) If you wish to pull specific TFRs for a geographical region, type in the 4 letter ICAO designator for the Center in your region. In the left hand box, enter the 4 letter ICAO identifier for the airspace involved. (See identifiers below). You may enter multiple ARTCCs by separating the identifiers with either a comma or a space. (NOTE - FDC NOTAMs are associated with the ARTCC that requested the TFR).

IDENTIFIERS MUST BE IN CAPITAL LETTERS

KZSE - Seattle
KZOA - Oakland
KZLA - Los Angeles
KZLC - Salt Lake City
KZDV - Denver
KZAB - Albuquerque
KZFW - Ft. Worth
KZHU – Houston
KZME - Memphis
KZKC - Kansas City
KZMP - Minneapolis
KZAU - Chicago
KZOB - Cleveland
KZNY - New York
KZBW - Boston
KZDC - Washington DC
KZJX - Jacksonville
KZMA - Miami
KZTL - Atlanta
KZID - Indianapolis
PAZA - Anchorage
PHZH - Honolulu

4) Click on "View NOTAMS". You will be able to scroll down and read (and print) your TFR NOTAM. Look for FDC number of your NOTAM (for example 0/5271)

5) Corrections, changes, and questions MUST be made through your local ARTCC. Do not call the US NOTAM office. This is critical to our access of this website. This website is for the use of Department of Defense aircrews; however, we currently have access to it. There are also other methods of reading your NOTAMS (through DUATs and the BLM airspace system for example). The FAA is also planning to launch a TFR website in the near future called "NAIMES *NAS (National Airspace System) Aeronautical Information Management Enterprise System.*

6) Note - TFR websites are not approved for flight navigation. Pilots must continue to use established agency procedures (e.g., FAA flight plans, etc.) for flight navigation.

Sample Current Notams
(Selected Locations)

*** The following Notices are active TFRs. ***

KZDV

Data was current as of: Tue, 18 Jun 2002 12:23:00 GMT

KZDV DENVER

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2/5710 - CO. FLIGHT RESTRICTIONS DURANGO, CO. EFFECTIVE IMMEDIATELY UNTIL FURTHER NOTICE. PURSUANT TO 14 CFR SECTION 91.137A(2) TEMPORARY FLIGHT RESTRICTIONS ARE IN EFFECT WITHIN AN AREA BOUNDED BY (POLYGON): 374000N/1074300W TO 374000N/1071600W TO 371400N/1072500W TO 372200N/1075100W AND THE DURANGO /DRO/ VORTAC 011 DEGREE RADIAL AT 31 NAUTICAL MILES TO 023 DEGREE RADIAL AT 38 NAUTICAL MILES TO 059 DEGREE RADIAL AT 17 NAUTICAL MILES TO 325 DEGREE RADIAL AT 14 NAUTICAL MILES AT AND BELOW 14000 FEET MSL TO PROVIDE A SAFE ENVIRONMENT FOR FIRE FIGHTING AIRCRAFT OPERATIONS. THE ROCKY MOUNTAIN COORDINATION CENTER 970-385-1329 IS IN CHARGE OF ON SCENE EMERGENCY RESPONSE ACTIVITIES. DENVER AFSS /DEN/ 720-873-2740 IS THE FAA COORDINATION FACILITY. WIE UNTIL UFN

2/5526 - WY.. FLIGHT RESTRICTIONS DOUGLAS, WY EFFECTIVE IMMEDIATELY UNTIL FURTHER NOTICE. PURSUANT TO 14 CFR SECTION 91.137 (A)(2) TEMPORARY FLIGHT RESTRICTIONS ARE IN EFFECT WITHIN A 10 NAUTICAL MILE RADIUS OF 421844N/1052436W AND THE MEDICINE BOW /MBW/ VOR/DME 032 DEGREE RADIAL AT 39 NAUTICAL MILES AT AND BELOW 14000 FEET MSL TO PROVIDE A SAFE ENVIRONMENT FOR FIRE FIGHTING OPERATIONS. U.S. FOREST SERVICE TELEPHONE 970-257-4800 OR FREQ 134.625 IS IN CHARGE OF ON SCENE EMERGENCY RESPONSE ACTIVITIES. CASPER AFSS /CPR/ TELEPHONE 307-261-5573 IS THE FAA COORDINATION FACILITY. WIE UNTIL UFN

2/5469 - CO..FLIGHT RESTRICTIONS VAIL, CO. EFFECTIVE IMMEDIATELY UNTIL FURTHER NOTICE. PURSUANT TO 14 CFR SECTION 91.137A(2) TEMPORARY FLIGHT RESTRICTIONS ARE IN EFFECT WITHIN A 5 NAUTICAL MILE RADIUS OF 393439N/1072222W AND THE SNOW /SXW/ VOR/DME 248 DEGREE RADIAL AT 18 NAUTICAL MILES AT AND BELOW 13500 FEET MSL TO PROVIDE A SAFE ENVIRON- MENT FOR FIRE FIGHTING AIRCRAFT OPERATIONS. THE USFS, TELE- PHONE 970-257-4800, IS IN CHARGE OF ON SCENE EMERGENCY RE- SPONSE ACTIVITIES. DENVER AFSS /DEN/ 720-873-2740, IS THE FAA COORDINATION FACILITY. WIE UNTIL UFN

2/0426 - CO.. FLIGHT RESTRICTIONS PUEBLO, CO EFFECTIVE IMMEDIATELY UNTIL FURTHER NOTICE. PURSUANT TO TITLE 14 CFR SECTION 91.137A(1) TEMPORARY FLIGHT RESTRICTIONS ARE IN EFFECT DUE TO NATIONAL SECURITY ARE NOT AUTHORIZED WITHIN A 3 NAUTICAL MILES RADIUS OF 381840N/1042051W OR THE PUEBLO /PUB/ VORTAC 063 DEGREE RADIAL AT 04 NAUTICAL MILES AT AND BELOW 3000 FEET AGL TO PROVIDE FOR A SAFE ENVIRONMENT FOR DOD OPERATIONS. DENVER AFSS /DEN/ 303-799-7016 IS THE FAA COORDINATION FACILITY. NOTE: UNLESS AUTHORIZED BY ATC FOR PURPOSES OF CONDUCTING ARRIVAL/DEPARTURE OPERATIONS. WIE UNTIL UFN

e. Ensure the accuracy of the TFR NOTAM information received from the ARTCC.

   If vital information is inaccurate, cancel the TFR NOTAM through the ARTCC and repeat the ordering process for an accurate TFR NOTAM.

f. Once the NOTAM is published, notify:

   - Military, if SUA/MTR/ SR/AR is involved
   - Incident air operations
   - Local tanker bases, smokejumper bases, and helibases
   - Adjoining GACCs or units
   - Local airport FBOs
   - Media
   - Local airport towers

G. TFR Maintenance

- Work with aviation personnel to determine if the TFR still meets the needs of the incident.

- If a change is needed, cancel the "A" number on the Resource Order, cancel the TFR with the ARTCC, and repeat the ordering process.

- Modify the TFR to accommodate the size and shape of the incident(s) and discuss combining TFRs if one TFR would simplify the process rather than multiple TFRs.

H. TFR Cancellation

When the incident no longer requires protected airspace, the TFR is cancelled.

- Contact the ARTCC.

- Notify all involved military units that you are closing the TFR.

- Use the reverse process given in the Basic Checklist For Implementing TFRs.

I. Airspace Conflicts

1. Near Mid-Air Collision (NMAC)

- 500 feet or less to another aircraft or the pilot and/or flight crew and passengers believe that a collision hazard existed.

- Reported to the FAA via FAA NMAC forms

Aircraft Incident Observation Checklist		Page 1 of 1
Location: _____	By: _____	Date: __/__/__

General

Date and time of the incident _____
Type of incident - NMAC, TFR Intrusion or other description of events)
_____
_____
_____
Weather conditions _____
Incident location _____
Altitude(s) and direction of flight _____

Type Aircraft

Jet (number and location of intakes) _____
Prop (number and location of propellers) _____
Helicopter (number and location of rotors) _____
Other (e.g., balloon, ultralight, hang glider, etc.) _____
Unknown

Addition Description

Readable markings and side numbers _____
_____
Color scheme _____
High wing versus low wing (refers to wing placement on main body) _____
Landing gear (wheels) - retractable or fixed-gear (usually gear visible in flight is fixed)
Number of Tails _____
Other distinctive configuration _____
_____
_____
_____

Other Comments

Airspace Conflicts Action Checklist					
Who	**Action**	**To**	**From**	**Date**	**Time**
Local Level	Conflict reported from the field to dispatch immediately. Dispatch obtains aircraft observation information (use Aircraft Observation Checklist).				
	SAFECOM initiated immediately:				
	Dispatch contacts FAA ARTCC/TRACON, and, if appropriate, other facilities (i.e., military) to obtain identification of non-participating aircraft and correct the problem.				
	Conflict reported from dispatch to State/Area/ Regional Aviation Manager immediately.				
State/ Area/ or Regional Level	After verification of a conflict, State, Area or Regional Aviation Manager contacts the following:				
	Military Scheduling Agency (SUA) or Activity (MTR), if appropriate.				
	MILREP at FAA Regional Office.				
	National Aviation Safety Manager.				
	Agency's Airspace representative				
	FSDO, if appropriate.				
	Complete and submit the following:				
	SAFECOM - FAA NMAC and/or pilot deviation.				
Remarks:					

2. TFR Intrusion

   a. Establish the exact time, direction of flight, and location of the intrusion.

   b. Obtain the best possible description of the aircraft.

   c. Call the issuing ARTCC and see if they are tracking the aircraft.

   d. If the aircraft is military, contact the military representative to the FAA.

   e. Gather witness statements.

   f. Ensure a SAFECOM is completed.

TEMPORARY FLIGHT RESTRICTION EXERCISE

The time is 14:41 UTC today. You are to request a Temporary Flight Restriction for a wildland fire located at 36.55'50"N X 114.12'25"W– Las Vegas Sectional.

The following information is given:

- The TFR is to be 20 nautical miles in diameter (10 NM radius).
- The TFR should be from the ground to 6,000 feet MSL. The highest elevation point is 2,000 feet.
- The VOR name is MMM; radial, 005 degrees; distance, 9 NM; latitude, 36.55'50"N; longitude, 114.12'25"W.
- Las Vegas Interagency Dispatch Center is the requesting agency (phone: 702-647-5000). The requesting agency is the BLM.
- The Victor frequency is 132.765.
- The nature of airborne relief operations is airtankers and helicopters.
- Request the TFR through Bob Troller at the Los Angeles ARTCC (KZLA).
- The Aircraft Resource Order, NV-LVD-4710, Gold Rush, number for this request is A-1.
- The aircraft base of operations designator is 67L (Mesquite, NV).
- Special-Use Airspace and MTRs involved: Desert MOA, VR-209 D:E (Lemoore) , and IR-126 V:W:X:Y (Barksdale AFB), IR-266 B:C:D:E (Barksdale AFB), V-21, V-235. The names in parentheses represent the scheduling activity.

Prepare the TFR Request Form and identify the process one goes through to obtain a TFR in the area below. Feel free to improvise for items such as telephone numbers.

NOTES

INTERAGENCY REQUEST FOR TEMPORARY FLIGHT RESTRICTION

(TFR request must be phoned in as per FAA. This form may also be FAXed to provide documentation.)

RESOURCE ORDER NUMBER: Request #: A -	DATE: TIME:
TO: FAA ARTCC _____ FAA PERSON CONTACTED: _____ FAA PHONE:_____ FAX:_____	**FROM:** DISPATCH OFFICE _____ PERSON REQUESTING TFR: _____ 24 HR. PHONE (No Toll Free #s) _____

☐ Check if this TFR is a replacement. If so, NOTAM # of TFR being replaced. _____
(Existing TFRs can not be changed, only cancelled and replaced.)

Geographic Location of Incident (nearest town, state) _____

Location (Circular TFR) List nearest NAVAID (distance should be less than 50 NM) - do not use NDB or T-VOR.

VOR ID	RADIAL (Degrees)	DISTANCE (NM)	LAT/LONG of Center Point (use US NOTAM OFFICE FORMAT ddmmssN/dddmmssW)	RADIUS (NM) (5 NM is standard)
			N/ W	

OR (Polygon TFRs should be rare and only used if circular shape is not adequate.)

Location (Polygon TFR) (List perimeter points in clockwise order) List nearest NAVAID (distance < 50 NM) - do not use NDB or T-VOR.

Point #	VOR ID (XXX)	Radial (Degrees)	Distance (NM)	Lat/Long ddmmssN/dddmmssW	Point #	VOR ID (XXX)	Radial (Degrees)	Distance (NM)	Lat/Long ddmmssN/dddmmssW
1				N/ W	5				N/ W
2				N/ W	6				N/ W
3				N/ W	7				N/ W
4				N/ W	8				N/ W

Altitude restrictions: _____ FEET MSL (do not use AGL – Standard is 2000' above highest terrain point)

The _____/_____ at _____ , _____
Agency Name / Incident Name / 24 Hr. Phone # (No Toll Free #s) / VHF-AM Air/Air Frequency
is in charge of on scene emergency response activities. TFR to provide a safe environment for fire fighting aircraft operations; effective immediately, until further notice, 24 hrs/day.

The requested TFR affects the following Special-Use Airspace:

The requested TFR affects the Military Training Routes listed below:

Route	SCHEDULING ACTIVITY	SEGMENT(S)	Route	SCHEDULING ACTIVITY	SEGMENT(S)

IMPORTANT NOTE TO FAA: If the TFR affects SUA and/or MTR(s), we request NOTAM distribution to all military bases involved, to the Coordinating Flight Service Station, and, for MTRs, to the Flight Service Station and Air Route Traffic Control Center with responsibility for the airspace at the route entry point(s).

NOTAM # _____ ISSUED AT _____ (Time) On _____/_____ (Date)

Date/Time TFR Cancelled: _____ By: _____

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VII. TEMPORARY TOWERS

A temporary tower consists of air traffic controllers as assigned by the FAA for an airport or helibase to provide advisories for arrivals and departures. The temporary tower is not an ATC for the incident.

Controllers may or may not arrive with a structure or communication equipment. The FAA will manage staffing and may request assistance with transportation.

A. Determination of Need for Temporary Towers

FAA temporary towers should be activated when conditions are such that an FAA presence at an airport or helibase will enhance safety. Needs may result from hazards to both participants and non-participating aircraft.

Checklist for Establishment of a Temporary Tower		Page 1 of 3
Location: _____	By: _____	Date : ___/___/___

Prior to Arrival of FAA Personnel
The following should be provided to FAA personnel before they travel to their assignment:

- ☐ Travel Direction. Give specific location or address of expanded dispatch for resource order check-in.
- ☐ Specific Location of Incident Command Post and airbase (fixed- and rotary-wing)
- ☐ Expanded Dispatch/Initial Attack Dispatch points of contact and phone numbers
- ☐ Points of Contact as appropriate: Local Unit Aviation Officer, Air Operations Branch Director and/or Air Support Group Supervisor, Helibase Manager
- ☐ Conditions to expect. Consider the following: Camp or hotel quarters, Weather conditions, Roads, Helibase/Airport Operation and Meals

Upon Arrival of FAA Personnel:
Upon FAA's arrival at assignment, provide the following general knowledge for assignment:

- ☐ Check-in protocol
- ☐ Lodging arrangements (how to get a hotel room), or how to obtain a sleeping bag, tent, etc. (Minimize primitive conditions to mitigate fatigue for controllers. This is a safety and controller union issue.)
- ☐ How the controllers are to order supplies for the tower, eating arrangements, etc. (i.e., through ASGS)
- ☐ Introduction to basic ICS, chain of command and flow structure: expanded dispatch and initial attack dispatch, unit aviation officer, air operations branch director, air support group supervisor, air tactical group supervisor, helibase manager, air tanker base manager
- ☐ Unit and incident(s)' communications plans, shift plans
- ☐ Demobilization or rotation protocol (FAA home unit and union rules will determine FAA personnel rotation)
- ☐ Transportation upon arrival, during assignment, rotation out, and demobilization
- ☐ Terminology (e.g., "What is a probeye? What is a ping pong ball machine? What is a fire shelter?)"

Checklist for Establishment of a Temporary Tower		Page 2 of 3
Location: _____	By: _____	Date : ___/___/___

Start-up Procedure:

Before tower is operational, air operations should:

☐ Provide FAA controllers personnel with a familiarization flight of the local area to help them understand the local area as pilots see it. Scope of this flight will vary depending upon whether controllers are being used as tower control or area-wide flight following. Visit all aircraft operating facilities (helibase and fixed-wing bases) if possible. It is very advantageous to have the air tactical group supervisor conduct this flight.

Upon completion of the flight, a briefing should be held between the tower operators, the air operations branch director, the air tactical group supervisor, the air support group supervisor, the helibase manager and/or air tanker base manager, the fixed-base operator, incident pilots and any local pilots continuing to operate from the airport or helibase. At this briefing, use their expertise to discuss the following:

☐ Site Selection for towers.
- Does a facility exist (deactivated tower, building, etc.)?
- Could you use a rental trailer?
- Does the facility have a good field or view for taxi, takeoff, and approach?

☐ Examine existing helibase/airport procedures. If necessary, amend temporarily to meet objectives. Consider:
- Inbound/outbound flight paths, altitudes and reporting points
- Air traffic patterns to, from, and around the incident
- Ground taxi patterns and departure sequence for helicopters and airplanes
- Communication procedures
- Procedure for obtaining frequency assignments (FAA and/or ATGS)

☐ Establish tower hours (Coordinate with supervisor or controller in charge)

☐ FAA rotation and duty day limitations

☐ Ensure that the controllers do the following:
- Issue NOTAM that tower is operational
- Notify agencies that tower is operational
- Establish LOA with ARTCC (if needed)

Checklist for Establishment of a Temporary Tower		Page 3 of 3
Location: _____	By: _____	Date : ___/___/___

Establish Emergency Procedures:

☐ Discuss fire survival (e.g., fire shelters, overrun of base or camp, etc.)

☐ Identify distractions and eliminate noise and heat.

☐ Discuss:

- Empty weight and loaded weight for runways
- Noise abatement procedures
- Restrictions on runways
- Local Airport Contacts
- Air tanker needs
- Aircraft performance and characteristics - weight
- Procedures if your TFR overlaps the airport or helibase
- The role of FAA if you have an intruder within your TFR
- Other TFRs in the area
- Procedure for TFR modifications

Shutdown Procedures:

☐ Be Sure To:

- Plan closure to tower in advance
  Note: FAA needs lead time for tower closure procedures to be put in effect
- Close out NOTAM
- Notify units throughout agencies of tower closure
- Close out aircraft resource order for temporary tower

B. Temporary Tower Criteria

1. Operations are being conducted from, or in proximity to, an uncontrolled airport.

2. There is a high volume of airplanes and/or helicopter traffic anticipated in close proximity to each other.

3. There is a high frequency of non-incident aircraft using common airspace.

4. Special events are being conducted adjacent to the incident or at the airport where incident aircraft are operating.

5. Visibility conditions are such that flight operations would be enhanced through use of certified controllers.

6. Risk assessment of involved airspace indicates the need for air traffic control.

C. Temporary Tower Ordering

1. Dispatch submits a Resource Order for an FAA tower as an “A” (aircraft) request.

2. Complete the Temporary Tower Request Form.

TEMPORARY TOWER REQUEST FORM

(Note - this form should be used in conjunction with the checklists located in Chapter 11 of the Interagency Airspace Coordination Guide (www.fs.fed.us/r6/fire/aviation/airspace) . Please attach this form to the Resource Order and forward both forms to the appropriate FAA Regional Operations Center (ROC), through established ordering channels.

I. GENERAL INFORMATION:

Incident Name _____ Management/Fiscal Code _____
Resource Order Number _____ Request Number _____ Date _____

II. POINTS OF CONTACT

	Name/Agency	Telephone
Ordering Unit	_____	_____
Air Ops/Air Support	_____	_____
Local or Expanded Dispatch	_____	_____
Geographic Area Coordination Ctr	_____	_____
National Interagency Coordination Ctr	_____	_____
FAA POC at ROC	_____	_____

Name / Phone Number of Airport Owner / Operator _____
Has the Airport Owner been notified? YES NO
Requested Operational Hours: _____
Estimated Length of Duration: _____

III. SUPPORT INFORMATION

Closest City/Town _____ State _____
Where is the proposed location of the temporary tower (Select one or explain):
Airport Name & FAA Code _____ Helibase _____
Incident Command Post _____ Other _____

Is a facility available on site for use as a tower (Select one or explain)?
FBO Site/Room rental/etc _____ Rental Trailer _____
Facility to be built on site _____ Other _____
Conditions to expect for overnight at site: Camp _____ Hotel _____

Is a vehicle (Gov't or rental) available for tower personnel? YES NO
Please attach detailed driving directions to the reporting site
Note Road closures, hazardous conditions, easiest route of travel, etc

IV. EQUIPMENT SURVEY - Refer to Chapter 11 checklist / Interagency Airspace Coordination Guide

What equipment do you currently have (radios, etc) for use by tower personnel?

What equipment do you need? (radios, etc)

Have you completed an inventory of equipment?

3. Follow the proper dispatch channels to order the temporary tower.

4. Ensure adequate radio kit(s) are available for use.

5. The incident should order support equipment.

   Trailers to house the temporary tower may need to be ordered through equipment orders.

D. Setup Process

- Once the tower has been ordered, the FAA will issue a NOTAM for the airport/helibase.

- Coordinate with the local unit aviation manager to provide a thorough briefing to the FAA controllers and the Incident Management Team (IMT).

E. Tower Release

Coordinated effort between the FAA, aviation management, and the incident(s)

The FAA requires 24-hour notice before the tower is released.

VIII. TOOLS OF THE TRADE

A. Maps

- Sectionals
- Aircraft hazards
- Computer-aided (e.g., IAMS/CAHIS, WildCAD, WINCAN)

B. Publications

- AP/1B Book and Charts
- Federal Aviation Regulation (FAR)/Aeronautical Information Manual (AIM)
- Airport Facilities Directory (AFD)
- Interagency Airspace Coordination Guide
- Aeronautical Chart User's Guide

C. Contact Phone and Fax Lists

- Scheduling agencies/activities
- FAA
- Military

NOTES